APPENDIX F

Senate Billx7-7

- Compliance with the Water Conservation Act of 2009 (Senate Billx7-7) Technical Memorandum (West Yost, April 2011)
- Resolution Adopting Water Conservation Act Year 2015 (Interim) and Year 2020 Water Use Targets
- Letter Agreement Establishing a Regional Alliance to Comply with SBx7-7 the Water Conservation Act of 2009

WEST YOST ASSOCIATES

TECHNICAL MEMORANDUM

DATE: April 20, 2011

TO: Marlene Demery, Town of Windsor
Craig Scott, Town of Windsor

FROM: Gerry Nakano, West Yost Associates
Jim Connell, West Yost Associates

SUBJECT: Compliance with the Water Conservation Act of 2009 (Senate Bill x7-7)

BACKGROUND

In November 2009, Senate Bill x7-7 (SBx7-7), The Water Conservation Act of 2009, was signed into law by Governor Arnold Schwarzenegger as part of a comprehensive water legislation package. The Water Conservation Act addresses both urban and agricultural water conservation. The legislation sets a goal of achieving a 20 percent statewide reduction in urban per capita water use by the year 2020 *(i.e.*, "20 by 2020") and directs urban retail water suppliers to establish an "interim" per capita water use target to be met by 2015 and a "final" per capita water use target to be met by 2020.

The legislation also extended the deadline for the submittal of 2010 Urban Water Management Plans (UWMPs) by urban retail water suppliers from December 31, 2010 to July 1, 2011 to allow for additional time to comply with the SBx7-7 requirements and to incorporate reporting requirements into the 2010 UWMPs. Similar legislation (SB 1478 passed on September 24, 2010) was also passed to extend the 2010 UWMP submittal deadline for urban wholesale water suppliers to permit coordination between urban wholesale water suppliers and urban retail water suppliers.

The Water Conservation Act of 2009 was incorporated into Division 6 of the California Water Code, commencing with Section 10608 of Part 2.55. The methodologies, water use targets, and reporting required by the Water Conservation Act of 2009 apply to urban retail water suppliers that "*directly provide potable municipal water to more than 3,000 end users or that supply more than 3,000 acre-feet of potable water annually at retail for municipal purposes.*"

The Town of Windsor (Town) currently serves approximately 9,037 connections (as of December 2010) and provided approximately 3,468 acre-feet of potable water to customers in 2010. Therefore, the Town is required to comply with the requirements of SBx7-7.

INTRODUCTION

This memorandum presents the Town of Windsor's (Town's) proposed compliance with SBx7-7. This memorandum includes the following information:

- Assumptions for gross water use and service area population
- Calculation of base daily per capita water use
- Calculation of interim and final targets using the four target methods established by SBx7-7 and DWR
- Recommended interim and final per capita water use targets for the Town
- Public hearing requirements
- Provisions for future revision of base daily per capita water use and/or target method used
- Reporting requirements in the Town's 2010 UWMP and subsequent UWMPs
- Allowable adjustments to compliance daily per capita water use
- Consequences of non-compliance with SBx7-7
- References

Calculations of Base Daily Per Capita Water Use, and Interim and Final Per Capita Water Use Targets have been made based on the requirements specified in the SBx7-7 legislation and the California Department of Water Resources (DWR) "Methodologies for Calculating Baseline and Compliance Urban Per Capita Water Use" dated October 1, 2010 (referred to as the "DWR Methodologies" in this memorandum).

Per capita water use is defined by the legislation as the total gross water use divided by the service area population, as such:

Per Capita Water Demand = Total Gross Water Use/Total Service Area Population

The units for Per Capita Water Demand are gallons per capita per day (gpcd), the units for Total Gross Water Use are in average gallons per day, and the unit for Total Service Area Population is persons (capita). Total Gross Water Use can be converted from units of acre-feet to average gallons per day by multiplying acre-feet times 325,851 gallons per acre-foot and dividing by the average number of days in a year (365.25). Total Gross Water Use does not include recycled water, but does include all other sources of potable and non-potable water.

The legislated definition of per capita water demand is different than is commonly used in water supply studies and can easily be distorted by the amount of Commercial, Industrial, and Institutional (CII) water use within a water supplier's service area.

Existing Potable Water Demand Projections

The Town has contracted with Maddaus Water Management in 2005 and again in 2010 to project the water service area potable water demands. The results of the most recent analysis are documented in a report titled *2010 Urban Water Management Plan Water Demand Analysis and Water Conservation Measures Update*, by Maddaus Water Management (Maddaus Analysis) dated November 22, 2010. The demand projections prepared by Maddaus were based on the ten-year average metered water demand for the entire service area, including the Outside Service Areas. The historical demands, demand projection assumptions, and estimated effectiveness and cost of water conservation measures are documented in the Maddaus Analysis. The Maddaus Analysis report indicates that the projected potable water demand for residential water use is based on the population growth through 2035 projected by the Association of Bay Area Governments (ABAG) in 2007. Similarly, the projected potable water demand for non-residential water use is based on the employment growth through 2035 projected by ABAG in 2007.

It is important to note that the water demand projections documented in the Maddaus Analysis are based on ABAG projections of population growth and growth in employment that in turn are based on the Town's General Plan land use. The requirements of the SBx7-7 legislation do not consider any growth characteristics that are specific to the Town's General Plan. Because of the historical water deliveries to the Airport Outside Service Area, and the projected growth in the Town's CII sectors, the per capita water demand is high, and expected to grow through buildout of the General Plan Land Use. The historical and projected per capita water demands are more fully explained in a technical memorandum titled *Per Capita Water Demand, Inside and Outside Town Limits*, dated February 28, 2011, by West Yost Associates.

GROSS WATER USE

Gross water use is the annual water supplied to the distribution system adjusted for recycled, wholesale, and agricultural deliveries and is defined in the Water Code as follows:

> *10608.12 (g) "Gross water use" means the total volume of water, whether treated or untreated, entering the distribution system of an urban retail water supplier, excluding all of the following:*
>
> *(1) Recycled water that is delivered within the service area of an urban retail water supplier or its urban wholesale water supplier.*
>
> *(2) The net volume of water that the urban retail water supplier places into long-term storage.*
>
> *(3) The volume of water the urban retail water supplier conveys for use by another urban water supplier.*
>
> *(4) The volume of water delivered for agricultural use, except as otherwise provided in subdivision (f) of Section 10608.24.*

The Town's gross water use is based on the quantity of water purchased by the Town from the Sonoma County Water Agency (SCWA), water pumped from the Town's Russian River Well Field, and groundwater pumped by the Town from its municipal production wells for municipal use, although the Town's off-river groundwater wells are not currently used to provide potable water. DWR Methodology 1 (Gross Water Use) suggests that water volumes should be adjusted

for meter errors and that gross water use calculations should be adjusted for changes in distribution system storage, indirect recycled water use and process water use. However, the Town's gross water use has not been adjusted for meter errors as the Town's meters are considered to be appropriately calibrated and any meter errors are considered to be negligible. The Town has also not adjusted its gross water use for changes in distribution system storage as the volumes of water stored in the Town's water storage reservoirs and tanks, although they vary from hour to hour based on diurnal demand patterns, are kept at consistent levels throughout the year. Also, no deductions have been taken for indirect recycled water use, water delivered for agricultural use or process water use as these deductions do not apply to the Town. The Town's gross water use, presented in the format recommended by the DWR Methodologies, is presented in Table 1, on the following page.

The Town's historical gross water use from 1999 to 2009 in acre-feet per year (af/yr) is summarized in Table 2.

Table 2. Town of Windsor Historical Gross Water Use

Year	Gross Water Use (includes Russian River Well Field, water purchased from SCWA and groundwater), af/yr
1999	3,857
2000	4,155
2001	4,405
2002	4,394
2003	4,126
2004	4,466
2005	4,167
2006	4,448
2007	4,418
2008	4,467
2009	3,724
2010	3,468

Table 1. Urban Retail Water Supplier Gross Water Use Calculation
(DWR Methodologies Table 1)

Utility Name: Town of Windsor
12-month period: 1-Jan to 31-Dec
Volume Units: MG

Item	Calculation	Year 1 1999	Year 2 2000	Year 3 2001	Year 4 2002	Year 5 2003	Year 6 2004	Year 7 2005	Year 8 2006	Year 9 2007	Year 10 2008	2009	2010
1	Volume from Own Sources (raw data)	1,083	1,249	1,315	1,225	1,189	1,347	1,214	1,245	1,267	1,290	1,045	960
	Meter error adjustment (+/-)	-	-	-	-	-	-	-	-	-	-	-	-
	Subtotal: Corrected Volume from Own Sources	1,083	1,249	1,315	1,225	1,189	1,347	1,214	1,245	1,267	1,290	1,045	960
2	Volume from Imported Sources (raw data)	174	104	121	207	156	108	144	205	172	166	168	170
	Meter error adjustment (+/-)	0	0	0	0	0	0	0	0	0	0	0	0
	Subtotal: Corrected Volume from Imported Sources	174	104	121	207	156	108	144	205	172	166	168	170
3	**Total Volume Into Distribution System = Item 1 + Item 2**	**1,257**	**1,354**	**1,435**	**1,432**	**1,345**	**1,455**	**1,358**	**1,449**	**1,440**	**1,455**	**1,214**	**1,130**
4	Volume Exported to Other Utilities (raw data)	0	0	0	0	0	0	0	0	0	0	0	0
	Meter error adjustment (+/-)	0	0	0	0	0	0	0	0	0	0	0	0
	Subtotal: Corrected Volume Exported to Other Utilities	0	0	0	0	0	0	0	0	0	0	0	0
5	Change in Distribution System Storage (+/-)	0	0	0	0	0	0	0	0	0	0	0	0
6	**Gross Water Use Before Indirect Recycled Water Use Deductions = Item 3 - Item 4 - Item 5**	**1,257**	**1,354**	**1,435**	**1,432**	**1,345**	**1,455**	**1,358**	**1,449**	**1,440**	**1,455**	**1,214**	**1,130**
7	Indirect Recycled Water Use Deduction	-	-	-	-	-	-	-	-	-	-	-	
8	**Gross Water Use After Indirect Recycled Water Use Deductions = Item 6 - Item 7**	**1,257**	**1,354**	**1,435**	**1,432**	**1,345**	**1,455**	**1,358**	**1,449**	**1,440**	**1,455**	**1,214**	**1,130**
9	Water Delivered for Agricultural Use (optional deduction)	-	-	-	-	-	-	-	-	-	-	-	0
10	Process Water Use (optional deduction)	-	-	-	-	-	-	-	-	-	-	-	-
11	**Gross Water Use After Optional Deductions = Item 8 - Item 9 - Item 10**	**1,257**	**1,354**	**1,435**	**1,432**	**1,345**	**1,455**	**1,358**	**1,449**	**1,440**	**1,455**	**1,214**	**1,130**

Indicates the 10-year period used to calculate the 10-year base daily per capita water use

SERVICE AREA POPULATION

Service area population is used to determine per capita water use and is defined in the Water Code as follows:

> *(1) 10608.20 (f) When calculating per capita values for the purpose of this chapter, an urban retail water supplier shall determine population using federal, state, and local population reports and projections.*

Consistent with DWR Methodology 2 (Service Area Population), the Town's service area population is based on population data obtained from the California Department of Finance (DOF) and the United States Census Bureau. The Town's historical service area population from 1999 to 2009 is summarized in Table 3.

Table 3. Town of Windsor Historical Service Area Population

Year	Service Area Population
1999	21,719
2000	22,529
2001	23,553
2002	24,130
2003	24,425
2004	24,867
2005	25,359
2006	25,889
2007	26,280
2008	26,471
2009	26,714

Historically, the population outside of the Town limits that was served by the water system was approximately equal to the population inside Town limits that was not served by the water system. Although this is not expected to be true in future, the historical water service area population is approximately equal to the historical Town population, and will be used in this analysis.

BASE DAILY PER CAPITA WATER USE

The Base Daily Per Capita Water Use is the historical gross water use divided by the service area population and is defined in the Water Code as follows:

> *10608.12 (b) "Base daily per capita water use" means any of the following:*
>
> *(1) The urban retail water supplier's estimate of its average gross water use, reported in gallons per capita per day and calculated over a continuous 10-year period ending no earlier than December 31, 2004, and no later than December 31, 2010.*

(2) For an urban retail water supplier that meets at least 10 percent of its 2008 measured retail water demand through recycled water that is delivered within the service area of an urban retail water supplier or its urban wholesale water supplier, the urban retail water supplier may extend the calculation described in paragraph (1) up to an additional five years to a maximum of a continuous 15-year period ending no earlier than December 31, 2004, and no later than December 31, 2010.

(3) For the purposes of Section 10608.22, the urban retail water supplier's estimate of its average gross water use, reported in gallons per capita per day and calculated over a continuous five-year period ending no earlier than December 31, 2007, and no later than December 31, 2010.

Unless the urban retail water supplier's 5-year Base Daily Per Capita Water Use per Water Code Section 10608.12(b)(3) is 100 gpcd or less, Base Daily Per Capita Water Use must be calculated for both baseline periods. Calculation methods are described in DWR Methodology 3 (Base Daily Per Capita Water Use).

5-Year Base Daily Per Capita Water Use Per Water Code Section 10608.22

For purposes of Water Code Section 10608.22, the Base Daily Per Capita Water Use must be calculated using a continuous 5-year period ending no earlier than December 31, 2007, and no later than December 31, 2010.

Table 4 shows the calculation of the Town's Base Daily Per Capita Water Use for the 5-year period ending December 31, 2007. As shown, the Town's 5-Year Base Daily Per Capita Water Use is 152 gpcd.

10- or 15-Year Base Daily Per Capita Water Use Per Water Code Section 10608.20

Per Water Code Section 10608.20, the Town's Base Daily Per Capita Water Use is calculated using one of the following base periods:

- If recycled water made up less than 10 percent of 2008 retail water delivery, use a continuous 10-year period ending no earlier than December 31, 2004, and no later than December 31, 2010.
- If recycled water made up 10 percent or more of 2008 retail water delivery, use a continuous 10- to 15-year period ending no earlier than December 31, 2004, and no later than December 31, 2010.

The Town's urban recycled water delivery in 2008 was 695 acre-feet, which was about 16 percent of the Town's total retail water delivery in 2008 (4,467 acre-feet, see Table 2). As such, the Town may use a continuous 10- to 15-year period to determine their Base Daily Per Capita Water Use. Because the Town considers water production data prior to the year 1999 to be unreliable, only 11 years of data were available and a 10-year average was used. Table 5 shows the calculation of the Town's Base Daily Per Capita Water Use for the 10-year period ending December 31, 2009. As shown, the Town's 10-Year Base Daily Per Capita Water Use is 156 gpcd.

Table 4. Base Daily Per Capita Water Use Calculation for Section 10608.22
(DWR Methodologies Table 3)

Utility Name: Town of Windsor
12-month Period: January 1 to December 31

(1)	(2)	(3)	(4)	(5)
Base Years	Service Area Population	Gross Water Use, gpd	Daily Per Capita Water Use (3) ÷ (2), gpcd	5-year Running Average Daily Per Capita Water Use Ending Between 2007 and 2010, gpcd
2003	24,425	3,683,715	151	
2004	24,867	3,987,336	160	
2005	25,359	3,720,147	147	
2006	25,889	3,971,151	153	
2007	26,280	3,943,838	150	152
2008	26,471	3,987,481	151	152
2009	26,714	3,324,681	124	145
2010	26,955	3,096,031	115	139
			5-Year Base Daily Per Capita Water Use Ending in 2007, gpcd	152

Indicates the 5-year period used to calculate the 5-year base daily per capita water use

Table 5. Base Daily Per Capita Water Use Calculation for Section 10608.20 (DWR Methodologies Table 4)

Utility Name: Town of Windsor
12-month Period: January 1 to December 31

(1)	(2)	(3)	(4)	(5)
Base Years	Service Area Population	Gross Water Use, gpd	Daily Per Capita Water Use (3) ÷ (2), gpcd	10-year Running Average Daily Per Capita Water Use Ending Between 2004 and 2010, gpcd
1999	21,719	3,443,159	159	
2000	22,529	3,709,293	165	
2001	23,553	3,932,841	167	
2002	24,130	3,922,926	163	
2003	24,425	3,683,715	151	
2004	24,867	3,987,336	160	
2005	25,359	3,720,147	147	
2006	25,889	3,971,151	153	
2007	26,280	3,943,838	150	
2008	26,471	3,987,481	151	156
2009	26,714	3,324,681	124	153
2010	26,955	3,096,031	115	148
			10-Year Base Daily Per Capita Water Use Ending in 2008, gpcd	156

Indicates the 10-year period used to calculate the 10-year base daily per capita water use

DETERMINATION OF INTERIM (2015) AND FINAL (2020) TARGETS

Overview of DWR Methods

The Town must set an interim (2015) water use target and a final (2020) water use target using one of four methods defined by SBx7-7 and DWR. These methods are defined in Water Code Section 10608.20(a)(1). The 2020 water use target will be calculated using one of the following four methods:

- Method 1: 80 percent of the Town's base daily per capita water use
- Method 2: Per capita daily water use estimated using the sum of performance standards applied to indoor residential use; landscaped area water use; and commercial, industrial, and institutional uses
- Method 3: 95 percent of the applicable State hydrologic region target as stated in the State's April 30, 2009, draft 20x2020 Water Conservation Plan
- Method 4 (Provisional): Per capita water use estimated by subtracting the potential for water savings in the residential, CII, and landscape/water loss sectors from the base per capita water use.

As described below, the target may need to be adjusted further to achieve a minimum reduction in water use regardless of the target method.

Target Method 1

SBx7-7 legislation, section 10608.20 (b) (1) defines Method 1 as:

> *Eighty percent of the urban retail water supplier's baseline per capita daily water use.*

Urban water use targets calculated using Method 1 rely on the historical gross water use and service area population to determine a base daily per capita water use. The definitions and methodologies used for Method 1, as defined in the legislation and in the DWR Methodologies, are detailed below.

Target Method 1 is based on a 20 percent reduction from the Town's 10-year Base Daily Per Capita Water Use. The Interim (2015) target is based on 90 percent of the Base Daily Per Capita Water Use and the Final (2020) target is based on 80 percent of the Base Daily Per Capita Water Use.

As calculated above, the Town's Base Daily Per Capita Water Use for the 10-year period ending December 31, 2009 is 156 gpcd (see Table 5). Therefore, the Town's interim (2015) target per Target Method 1 is 140 gpcd (90 percent of 156 gpcd), and the Town's final (2020) target per Target Method 1 is 125 gpcd (80 percent of 156 gpcd).

The Town's targets using Target Method 1 are summarized as follows:

- Interim (2015) Target = 140 gpcd
- Final (2020) Target = 125 gpcd

Target Method 2

SBx7-7 legislation, section 10608.20 (b) (2) defines Method 2 as:

> *The per capita daily water use that is estimated using the sum of the following performance standards:*
>
> *(A) For indoor residential water use, 55 gallons per capita daily water use as a provisional standard. Upon completion of the department's 2016 report to the Legislature pursuant to Section 10608.42, this standard may be adjusted by the Legislature by statute.*
>
> *(B) For landscape irrigated through dedicated or residential meters or connections, water efficiency equivalent to the standards of the Model Water Efficient Landscape Ordinance set forth in Chapter 2.7 (commencing with Section 490) of Division 2 of Title 23 of the California Code of Regulations, as in effect the later of the year of the landscape's installation or 1992. An urban retail water supplier using the approach specified in this subparagraph shall use satellite imagery, site visits, or other best available technology to develop an accurate estimate of landscaped areas.*
>
> *(C) For commercial, industrial, and institutional uses, a 10-percent reduction in water use from the baseline commercial, industrial, institutional water use by 2020.*

Residential Indoor Water Use

Per DWR Methodology 5 (Indoor Residential Use), the residential indoor urban water use target is set at 55 gpcd. The legislation requires that DWR assess whether this is a reasonable assumption in a report due in 2016. Depending on the findings, the residential indoor urban water use target may be adjusted after 2016.

Landscape Irrigation Water Use

The landscaped area urban water use target relies on the state-adopted Model Water Efficient Landscape Ordinance for definitions and calculations. The landscaped area for the service area must be computed and then the Maximum Applied Water Allowance (MAWA) calculated from the Model Water Efficient Landscape Ordinance. Two different MAWA equations are specified in the DWR Methodologies. For landscapes installed prior to January 1, 2010, the MAWA equation as defined in the 1992 version of the Model Water Efficient Landscape Ordinance is to be used. For landscapes installed after January 1, 2010, the MAWA equation as defined in the 2009 version of the Model Water Efficient Landscape Ordinance is to be used.

Per the DWR Methodology 6 (Landscaped Area Water Use), a rigorous application of this method requires a data-intensive analysis using GIS, coupled with site visits, to estimate appropriate irrigation areas. Such an analysis has not been performed for this evaluation. Instead, rough estimates of landscaped areas have been used to determine if the Method 2 targets are comparable to targets obtained using alternative methods.

The equation used to calculate the MAWA on landscaped areas constructed prior to January 1, 2010 is as follows:

Maximum Applied Water Allowance (MAWA) = (ETo) (0.62)(0.8 x LA)

Where,

MAWA is in gallons per year

ETo = 42.0 inches/year for the Town of Windsor. Reference evapotranspiration (inches per year), which is "a standard measurement of environmental parameters which affect the water use of plants" (reference: Appendix A of the Model Water Efficient Landscape Ordinance)

0.62 = Conservation Factor (from inches/year to gallons/sf/year)

0.8 = ET Adjustment Factor (ETAF). When applied to reference evapotranspiration, the ETAF "adjusts for plant factors and irrigation efficiency, two major influences upon the amount of water that needs to be applied to the landscape

LA = Landscaped Area (sf), which includes "all the planting areas, turf areas, and water features in a landscape design plan subject to the MAWA calculation" (for SBx7-7 compliance, only irrigated landscape area should be included)

The Town has estimated the Landscaped Area (LA) installed prior to January 1, 2010 based on the following assumptions:

- Residential landscaped areas have been estimated by the Town to be 1,800 square feet per connection (actual landscaped areas have not been measured)
- "Dedicated meter" landscaped areas have been estimated by the Town to be 100 acres, using a statistical sampling method (total landscaped areas have not been measured)
- "Recycled water" landscaped areas have been estimated by the Town to be 195 acres (actual landscaped areas have not been measured)

Based on these assumptions, which have yet to be proven, the pre-2010 Landscaped Area is approximately 27.3 million square feet (about 626 acres), and the calculated MAWA is 597.8 million gallons per year. Based on the Town's projected 2020 service area population of 29,600, the MAWA for the pre-2010 landscaped area equates to 55 gpcd.

A second equation is used to determine the MAWA on landscaped areas constructed after January 1, 2010. It is as follows:

Maximum Applied Water Allowance (MAWA) = (ETo) (0.62) [(0.7 x LA) + (0.3 x SLA)]

Where definitions for factors not provided above are,

0.7 = ET Adjustment Factor (ETAF). When applied to reference evapotranspiration, the ETAF "adjusts for plant factors and irrigation efficiency, two major influences upon the amount of water that needs to be applied to the landscape

0.3 = Additional Water Allowance for Special Landscape Area (SLA), resulting in an effective ETAF for SLA of 1.0

> *SLA = Special Landscaped Area (sf), which is defined as "an area of the landscape dedicated solely to edible plants, areas irrigated with recycled water, water features using recycled water and areas dedicated to active play such as parks, sports fields, golf courses, and where turf provides a playing surface"*

The Town is not able to project the future Landscaped Area (LA) and Special Landscaped Area (SLA) to be constructed after January 1, 2010 until several planning projects, currently in progress, near completion. Therefore, the MAWA for the post-2010 landscaped area must be set to 0 gpcd.

The total MAWA for the pre-2010 and post-2010 landscapes therefore equates to 55 gpcd (55 gpcd + 0 gpcd). This target value could be increased by 5 gpcd (for example) if any one of the following occurs between January 1, 2010 and December 31, 2020:

- Addition of 1,500 single family residences with at least 1,800 square feet of landscape area;
- Addition of 62 acres of landscape area irrigated with potable water; or,
- Addition of 40 acres of landscape or agricultural area irrigated with recycled water.

Greater increase in irrigation area would further increase the Target per capita water demand. Because no further landscape or agricultural irrigation area was assumed past January 1, 2010, it is likely that Method 2 could become the preferred Method if the Town were to develop a better understanding of the current irrigation areas and a better projection of future irrigation areas.

Commercial, Industrial and Institutional Water Use

Per DWR Methodology 7 (Baseline Commercial, Industrial and Institutional Water Use), the commercial, industrial and institutional (CII) urban water use target is based on a 10 percent reduction in water use from the baseline CII water use by 2020. The calculation of the baseline CII water use is performed in the same way that the 10-year Base Daily Per Capita Water Use is calculated and is shown on Table 6. As shown, the baseline CII water use for the 10-year period ending in 2004 is 20 gpcd. The CII water use target is then a 10 percent reduction from this baseline water use and equals 18 gpcd.

The resulting final (2020) target for Method 2 is then the sum of the residential indoor water use target (55 gpcd), the landscaped area urban water use target for pre- and post-landscaped areas (55 gpcd + 0 gpcd = 55 gpcd) and the CII urban water use target (18 gpcd), or 128 gpcd. The interim (2015) target is the midpoint between the Town's 10-Year Base Daily Per Capita Water Use (156 gpcd) and the final (2020) target as calculated by Method 2 (128 gpcd), or 142 gpcd.

The Town's targets using Target Method 2 are summarized as follows:

- Interim (2015) Target = 142 gpcd
- Final (2020) Target = 128 gpcd

Table 6. Baseline Commercial, Industrial and Institutional (CII) Water Use

Utility Name: Town of Windsor
12-month Period: January 1 to December 31

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Base Years	Service Area Population	Commercial Water Use, MG	Industrial Water Use, MG	Institutional Water Use, MG	Total CII Water Use, MG (3) + (4) + (5)	CII Daily Per Capita Water Use (6) ÷ (2), gpcd	10-year Running Average Daily Per Capita Water Use Ending Between 2004 and 2010, gpcd
1999	21,719	157			157	20	
2000	22,529	161			161	20	
2001	23,553	178			178	21	
2002	24,130	188			188	21	
2003	24,425	164			164	18	
2004	24,867	176			176	19	
2005	25,359	182			182	20	
2006	25,889	189			189	20	
2007	26,280	202			202	21	
2008	26,471	212			212	22	20
2009	26,714	164			164	17	20
2010	26,955	178			178	18	20
						Baseline CII Per Capita Water Use Ending in 2008, gpcd	**20**

Indicates the 10-year period used to calculate the 10-year base daily per capita water use

Target Method 3

SBx7-7 legislation, section 10608.20 (b) (3) defines Method 3 as:

> *Ninety-five percent of the applicable state hydrologic region target, as set forth in the state's draft 20x2020 Water Conservation Plan (dated April 30, 2009). If the service area of an urban water supplier includes more than one hydrologic region, the supplier shall apportion its service area to each region based on population or area.*

Method 3 is based on the hydrologic region targets that have been established in the draft 20x2020 Water Conservation Plan dated April 30, 2009[1].

DWR has defined ten hydrologic regions for water resources planning purposes (see Figure 1). The Town of Windsor is located in the North Coast Hydrologic Region (Region No. 1).

The baseline, interim and final targets established in the 20x2020 Water Conservation Plan are summarized in Table 7.

Table 7 also shows 95 percent of the final (2020) hydrologic region targets, which are the required 2020 targets for SBx7-7 Method 3. For the Town, the 2020 target is 130 gpcd (95 percent of the Region No. 1 targets).

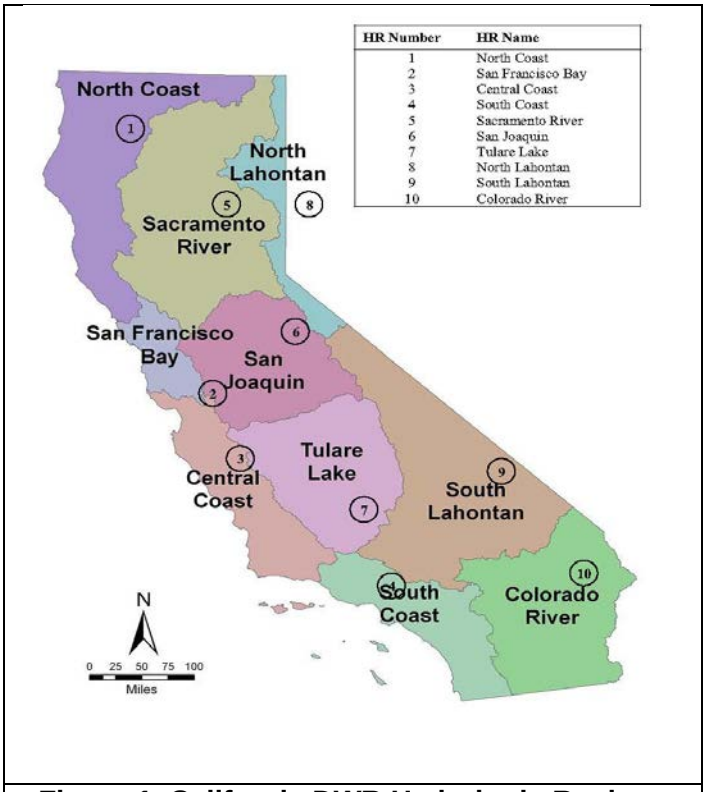


Figure 1. California DWR Hydrologic Regions

The Method 3 interim target is calculated based on the midpoint between the Town's 10-year Base Daily Per Capita Water Use (156 gpcd) and the Method 3 2020 Target (130 gpcd) and equals 143 gpcd.

The Town's targets using Target Method 3 are based on the Region 1 targets and are summarized as follows:

- Interim (2015) Target = 143 gpcd
- Final (2020) Target = 130 gpcd

[1] A final version of the 20x2020 Water Conservation Plan was published in February 2010.

Table 7. California Hydrologic Region Per Capita Water Use Targets

DWR Hydrologic Region Number and Name, gpcd	Region 1 North Coast	2 SF Bay	3 Central Coast	4 South Coast	5 Sacto River	6 San Joaquin	7 Tulare Lake	8 North Lahontan	9 South Lahontan	10 Colorado River
20x2020 Water Conservation Plan Targets										
Baseline (1995-2005)	165	157	154	180	253	248	285	243	237	346
Interim (2015) Targets	151	144	139	165	215	211	237	208	204	278
Final (2020) Targets	137	131	123	149	176	174	188	173	170	211
SBx7-7 Targets										
95% of Final (2020) Targets	130	124	117	142	167	165	179	164	162	200

Note: The Town of Windsor is located in Region 1 (North Coast).
Interim (2015) SBx7-7 Targets are to be determined based on the midpoint of the agency's 10-year base daily per capita water use and the Final (2020) SBx7-7 target as shown above.

Target Method 4

SBx7-7 legislation, section 10608.16 (j) requires Method 4 be reviewed once the methodology has been developed by DWR:

> *10608.16 (j) An urban retail water supplier shall be granted an extension to July 1, 2011, for adoption of an urban water management plan pursuant to Part 2.6 (commencing with Section 10610) due in 2010 to allow use of technical methodologies developed by the department pursuant to paragraph (4) of subdivision (b) and subdivision (h). An urban retail water supplier that adopts an urban water management plan due in 2010 that does not use the methodologies developed by the department pursuant to subdivision (h) shall amend the plan by July 1, 2011, to comply with this part.*

On February 16, 2011, DWR released the Provisional Target Method 4. It should be noted that Method 4 is "provisional", and it is expected that DWR will continue to make improvements to the method, prior to finalizing the methodology before the end of 2014 as stated in Water Code Section 10608.20 (d):

> *The department shall update the method described in paragraph (4) of subdivision (b) and report to the Legislature by December 31, 2014. An urban retail water supplier that adopted the method described in paragraph (4) of subdivision (b) may adopt a new urban daily per capita water use target pursuant to this updated method.*

Possible improvements to Method 4 may include changes to the landscape and water loss savings calculations and adjustments to baselines based on data provided in 2010 UWMPs.

Method 4 develops water use targets which consider the water conservation potential from the following four sources:

1. Indoor Residential Savings
2. Metering Savings
3. CII Savings
4. Landscape and Water Loss Savings

The sum of the calculated water use savings from the four sources listed above will be subtracted from the 10-year Base Daily Per Capita Water Use to determine the Method 4 final (2020) water use target. The Method 4 interim target is calculated based on the midpoint between the 10-year Base Daily Per Capita Water Use and the Method 4 2020 Target. A summary of the water savings assumptions and calculations for each of these four sources is provided below.

Indoor Residential Savings

Indoor residential water use is assumed by Method 4 to be 70 gpcd for all water suppliers. The indoor residential savings can be calculated in two ways, either by using a default savings of 15 gpcd, or by using the Best Management Practices (BMP) Calculator. The BMP Calculator sums the potential savings from the following four elements:

- Single-family housing toilets
- Multi-family housing toilets
- Residential washers
- Showerheads

Based on the four categories of fixtures listed above, the BMP Calculator estimates how much indoor residential water use would be saved if the saturation for efficient fixtures was increased to reach saturation goals for 2020. Saturation goals for each of the elements listed above are defined as:

- Single-family housing toilets = 85 percent 1.28 gallons per flush toilets
- Multi-family housing toilets = 85 percent 1.28 gallons per flush toilets
- Residential washers = 85 percent Water Factor of 6 (Water Factor = gallons of water per cubic foot of laundry), the remaining 15 percent must have a Water Factor less than the mid-year (end of 2004) average Water Factor
- Showerheads = 95 percent low flow showerheads

Existing saturation estimates are based on the midpoint year of the supplier's baseline, which for the Town would be 2004. Therefore, water suppliers with existing high percentages of efficient fixtures will have to install fewer efficient fixtures in the future, and subsequently, will have a smaller calculated indoor residential savings requirement (*i.e.*, higher Method 4 per capita water use target).

The more BMPs that the Town had completed prior to the mid-year of the baseline, the lower the potential savings from the future BMPs would be, and therefore, the higher the target per capita water demand for this source.

For the purpose of this TM, it is assumed that the Town would apply the default water savings of 15 gpcd. If the Town believes substantial progress had been made toward saturation of the elements listed above by 2005, and the data are available, it may be worthwhile to enter the data into the DWR BMP Calculator spreadsheet and calculate the Indoor Residential Savings instead of using the default.

Metering Savings

The metering savings calculation assumes (per BMP 1.3 of the California Urban Water Conservation Council Memorandum of Understanding) that water deliveries to unmetered accounts can be lowered by 20 percent once meters are installed. Because the Town has no unmetered accounts, this water savings is zero.

CII Savings

The CII savings are 10 percent of the baseline CII water use, identical to the calculation of CII savings in Target Method 2 as discussed above. As shown in Table 6, the Town's baseline CII water demand is 20 gpcd. Ten percent of that would be 2 gpcd.

Landscape and Water Loss Savings

Estimated landscape water use and water loss is equal to the 10-year Base Daily Per Capita Water Use minus the following per capita water uses: residential indoor, unmetered, and CII. DWR calculated the value of 21.6 percent based on the percent reduction required for a random sample of 54 California water suppliers to reduce their collective total per capita water demand by 20 percent. DWR anticipates adjusting the required percent reduction in Landscape and Water Loss to be included in the 2015 UWMP.

Target Method 4 Calculation

West Yost has calculated the Town's targets using Method 4 based on the default savings for the indoor residential savings as follows:

Calculation for Estimated Landscape Water Use and Water Loss:

10-Year Baseline, gpcd	Minus	Standard Indoor Residential, gpcd	Minus	10-Year Baseline CII, gpcd	Equals	Estimated Landscape Water Use and Water Loss, gpcd
156	-	70	-	19 (based on 2004 CII water use)	=	67

Calculation of Total Savings:

Indoor Residential Savings (Default), gpcd	Plus	Metered Savings BMP 1.3, gpcd	Plus	CII Savings BMP 4 (10% of CII Baseline), gpcd	Plus	Landscape plus Water Loss Savings (21.6% of Estimated Landscape Water Use and Water Loss), gpcd	Equals	Total Savings, gpcd
-15	+	0	+	-2	+	-14	=	-31

Calculation of Provisional Method 4 2020 Urban Water Use Target:

10-Year Baseline, gpcd	Plus	Total Savings, gpcd	Equals	2020 Urban Water Use Target, gpcd
156	+	-31	=	125

The Method 4 interim target is calculated based on the midpoint between the Town's 10-year Base Daily Per Capita Water Use (156 gpcd) and the Method 4 2020 Target (125 gpcd) and equals 141 gpcd.

The Town's targets using Target Method 4 are summarized as follows:

- Interim (2015) Target = 141 gpcd
- Final (2020) Target = 125 gpcd

Minimum Water Use Reduction Requirement

Water Code Section 10608.22 specifies the minimum water use reduction requirement as follows:

> *Notwithstanding the method adopted by an urban retail water supplier pursuant to Section 10608.20, an urban retail water supplier's per capita daily water use reduction shall be no less than 5 percent of base daily per capita water use as defined in paragraph (3) of subdivision (b) of Section 10608.12. This section does not apply to an urban retail water supplier with a base daily per capita water use at or below 100 gallons per capita per day.*

The calculation of the minimum water use reduction requirement includes the following three steps:

1. Calculate Base Daily Per Capita Water Use using a continuous five-year period ending no earlier than December 31, 2007, and no later than December 31, 2010.
2. Multiply the result from Step 1 by 0.95. The 2020 per capita water use target cannot exceed this value (unless the water supplier's five year baseline per capita water use is 100 gpcd or less). If the 2020 target is greater than this value, reduce the target to this value.
3. Set the 2015 target to the mid-point between the 10- to 15-year baseline per capita water use and the 2020 target determined in Step 2.

As described above, the Town's Base Daily Per Capita Water Use for the five-year period ending December 31, 2007 was 152 gpcd (see Table 4). Therefore, per Water Code Section 10608.22, the 2020 per capita water use target cannot exceed 95 percent of 152 gpcd, or 144 gpcd. The Interim (2015) target is then set at the midpoint between the Town's 10-year Base Daily Per Capita Water Use (156 gpcd) (see Table 5) and 144 gpcd, which equals 150 gpcd.

The Town's targets using the required minimum reduction are summarized as follows:

- Interim (2015) Target = 150 gpcd
- Final (2020) Target = 144 gpcd

Recommended Target Method and Resulting Targets for the Town of Windsor

Table 8 summarizes the methods for calculating base daily water use and the interim and final target daily water use in gpcd.

Table 8. Summary of SBx7-7 Methodologies for Determining Urban Water Use Targets

Target Method Number	Target Method Description	Base Daily Per Capita Water Use	Interim (2015) Target	Final (2020) Target
1	Uses historical gross water use and service area population to determine a base daily per capita water use. The Urban Water Use Target is 80 percent of this value. Based on 10-year running average per capita water use ending between 2004 and 2010. Gross water use is that total water supplied to the system less recycled, wholesale or agricultural deliveries	156 gpcd	140 gpcd	125 gpcd
2	Uses performance standards for indoor water use, landscape irrigation use and commercial, institutional and industrial (CII) uses. Residential water use = 55 gpcd Uses Model Water Efficient Landscape Ordinance for definitions and calculations. Uses estimated landscaped area and applies a Maximum Applied Water Allowance, calculated from the ordinance[(a)]. CII use based on historical CII per capita use less 10 percent	156 gpcd[(b)]	142 gpcd	128 gpcd
3	Uses 95 percent of the applicable state hydrologic region target as defined in the state's draft 20x2020 Water Conservation Plan issued by DWR in April 2009 Town of Windsor is located in state hydrologic region number 1 (North Coast Region)	156 gpcd	143 gpcd	130 gpcd
4	Results shown based on Provisional Method 4 released by DWR in February 2011 Provisional Method 4 is subject to change	156 gpcd	141 gpcd	125 gpcd
Minimum Required	Based on 95 percent of the 5-year running average per capita water use ending between 2007 and 2010.	156 gpcd	150 gpcd	144 gpcd

(a) Rigorous application of this method requires a data-intensive analysis using GIS, coupled with site visits to estimate appropriate irrigation areas. For preliminary screening purposes to evaluate use of the method, existing landscaped areas were estimated by the Town (see additional discussion under Target Method 2).

(b) The baseline for this method is the same from Method 1 and used to establish the interim target.

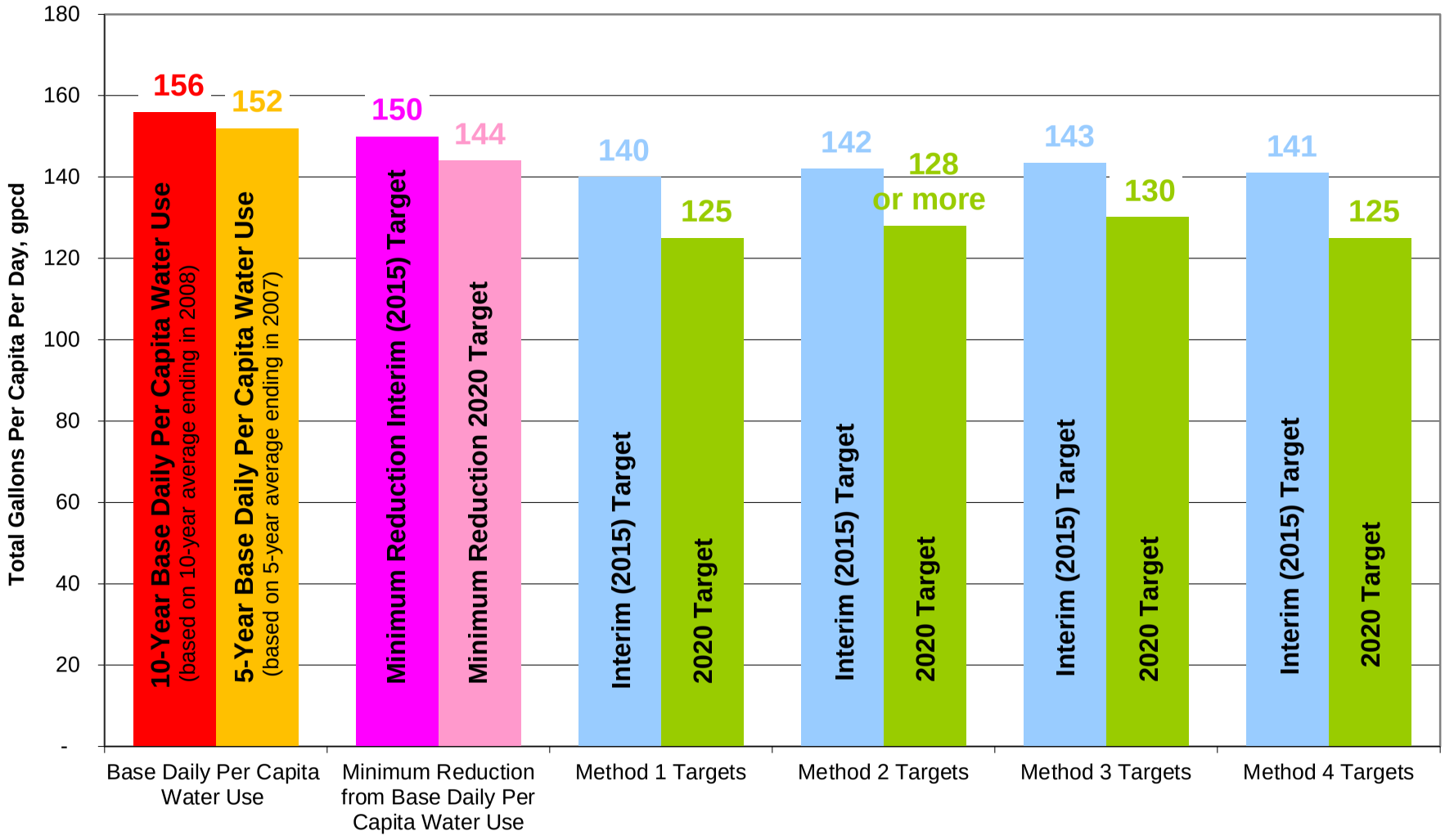
Based on the results for the four target methods, Target Method 3 has the most favorable results for the Town. These targets are graphically shown on Figure 2.

Therefore, the Town should adopt the following SBx7-7 per capita water use targets based on the Method 3 Target water use reduction requirement:

- Interim (2015) Target = 143 gpcd
- Final (2020) Target = 130 gpcd

Although the Town can plan on implementing measures to reduce the per capita water demand below the recommended Target, it is in the best interest of the Town to adopt the highest supportable Target to avoid sanctions.

Figure 2. Summary of SBx7-7 Targets for Town of Windsor



The Town's compliance with these targets in 2015 and 2020 shall be determined in accordance with the appropriate DWR calculation methodology (Compliance Daily Per Capita Water Use) based on gross water use and service area population in the compliance years (2015 and 2020).

ADJUSTMENTS TO COMPLIANCE DAILY PER CAPITA WATER USE

Water Code Section 10608.24(d) provides for adjustments when determining the compliance daily per capita water use. It states that an urban retail water supplier may consider the following factors:

- Differences in evapotranspiration and rainfall in the baseline period compared to the compliance reporting period.
- Substantial changes to commercial or industrial water use resulting from increased business output and economic development that have occurred during the reporting period.
- Substantial changes to institutional water use resulting from fire suppression services or other extraordinary events, or from new or expanded operations, that have occurred during the reporting period.

As described in DWR Methodology 8 (Criteria for Adjustments to Compliance Daily Per Capita Water Use), if the urban retail water supplier elects to adjust its estimate of compliance daily per capita water use due to one or more of the factors described above, it shall provide the basis for, and data supporting, the adjustment.

FUTURE REVISION OF METHODS AND/OR TARGETS

The Town may revise its calculated Base Daily Per Capita Water Use after submitting its 2010 UWMP if better information becomes available. The revisions may be included in the Town's 2015 UWMP and subsequent plans or may be submitted in an amended UWMP, provided it follows the process required for amendments to UMWPs. It should be noted that if the revisions to the Base Daily Per Capita Water Use change the water use target, the water use target must be revised as well.

In addition, the Town may change the method it uses to set its water use target, and report the method change and target revision in an amended 2010 UWMP or in its 2015 UWMP. Target method changes are not permitted in the 2020 UWMP or amended 2015 UWMPs. As indicated above, it would likely be of benefit to the Town to further develop the data for Target Method 2, which could result in a greater Target per capita water demand than Target Method 3.

FUTURE REVISION OF METHODS AND/OR TARGETS

The Town may revise its calculated Base Daily Per Capita Water Use after submitting its 2010 UWMP if better information becomes available. The revisions may be included in the Town's 2015 and subsequent plans or may be submitted in an amended 2010 UWMP, provided it follows the process required for amendments to UMWPs. It should be noted that if the revisions to the Base Daily Per Capita Water Use change the water use target, the water use target must be revised as well.

In addition, the Town may choose to change the method it uses to set its water use target, and report the method change and target revision in an amended 2010 UWMP or in its 2015 UWMP. However, target method changes are not permitted in an amended 2015 UWMPs or in 2020 UWMPs.

PUBLIC HEARING REQUIREMENTS

To comply with Water Code Section 10608.26, the Town shall conduct at least one public hearing to discuss and adopt the water use target method and resulting water use targets for 2015 and 2020. The following issues must be addressed during the public hearing:

- Allow community input regarding the urban retail water supplier's implementation plan for complying with SBx7-7;
- Consider the economic impacts of the urban retail water supplier's implementation plan for complying with SBx7-7; and
- Adopt a method, pursuant to subdivision (b) of Section 10608.20, for determining its urban water use target.

The Water Code has no other specific requirements for this public hearing. The Town may choose to hold a specific public hearing for this purpose only, or may choose to combine this public hearing with the public hearing required for the preparation of the Town's 2010 UWMP (per Water Code Section 10642).

REPORTING REQUIREMENTS

The Town must report on their SBx7-7 compliance in their upcoming UWMPs. Table 9 provides an outline of the specific reporting requirements for the Town's 2010, 2015, and 2020 UWMPs.

Table 9. SBx7-7 Reporting Requirements

Reporting Element	2010 UWMP	2015 UWMP	2020 UWMP
Baseline Gross Water Use and Service Area Population	✓	✓	✓
2020 Urban Water Use Target	✓	✓	✓
Interim 2015 Urban Water Use Target	✓	✓	✓
Compliance Year Gross Water Use	✓	✓	✓
Service Area Population	✓	✓	✓
Adjustments to Gross Water Use in the Compliance Year	✓	✓	✓
Water Suppliers who choose Target Method 2 must provide Landscaped Area Water Use and Baseline CII Water Use data	✓	✓	✓
Water suppliers who choose Target Method 4 must provide the components of calculation as required by Target Method 4	✓	✓	✓

Note: UWMP requirements after 2020 are not specified in SBx7-7.

The Town will incorporate these reporting requirements into their 2010, 2015 and 2020 UWMPs.

CONSEQUENCES OF NON-COMPLIANCE WITH SBX7-7

The Town must comply with the SBx7-7 requirements by establishing 2015 interim and 2020 final water use targets, demonstrating that its water use is in compliance with its targets, and reporting water use baselines, targets, compliance year water use, and supporting data in its 2010, 2015 and 2020 UWMPs.

Water Code Section 10608.56(a) states that a water supplier not in compliance will not be eligible for water grants or loans that may be administered by DWR or other state agencies:

> *On and after July 1, 2016, an urban retail water supplier is not eligible for a water grant or loan awarded or administered by the state unless the supplier complies with this part.*

Two exceptions to this are allowed:

- Water Code Section 10608.56 (c) states that a water supplier shall be eligible for a water loan or grant if it "has submitted to the department for approval a schedule, financing plan, and budget, to be included in the grant or loan agreement, for achieving the per capita reductions."
- Water Code Section 10608.56 (e) states that a water supplier can also be eligible for a water loan or grant if it "has submitted to the department for approval documentation demonstrating that its entire service area qualifies as a disadvantaged community."

REFERENCES

Methodologies for Calculating Baseline and Compliance Urban Per Capita Water Use, prepared by California Department of Water Resources, October 1, 2010.

Senate Bill 1478, approved by Governor Arnold Schwarzenegger on September 24, 2010.

Water Conservation Act of 2009 (Senate Bill x7-7), approved by Governor Arnold Schwarzenegger on November 10, 2009.

RESOLUTION NO. 2777-11

A RESOLUTION OF THE TOWN COUNCIL OF THE TOWN OF WINDSOR ADOPTING WATER CONSERVATION ACT YEAR 2015 (INTERIM) AND YEAR 2020 WATER USE TARGETS

WHEREAS, In November 2009 the Water Conservation Act of 2009 (SB x7-7) was signed into law by Governor Arnold Schwarzenegger; and

WHEREAS, The Act sets a goal of achieving a 20 percent statewide reduction in urban per capita water use by 2020; and

WHEREAS, the Act required that urban water retailers who serve over 3000 acre-feet of potable water annually or provide urban retail water to 3,000 end users adopt interim 2015 and 2020 water targets to assist the State to achieve the reductions in the legislation; and

WHEREAS, the Department of Water Resources (DWR) released the final methodologies for calculating Baseline and Compliance Urban Per Capita Water Use describing the four allowable methods for determining the targets for determining that form the basis for compliance with the Act requirements for the Year 2020 as well as the Interim Target for 2015; and

WHEREAS, the DWR also allows the formation of a regional alliance which allows water suppliers to work cooperatively in meeting a blended target as an alternative to an individual target; and

WHEREAS, the Water Contractors and Marin Municipal have been working collaboratively with the Sonoma County Water Agency in developing the contractors' individual 2010 Urban Water Management Plans,

WHEREAS, the collaborative effort noted above has identified three of the Water Contractors (North Marin Water District, City of Sonoma, and the Town of Windsor); as currently being forecast to not meet the individual SBx7-7 targets, however, the collaborative effort forecasts a regional alliance will comply,

WHEREAS, the Water Advisory Committee (WAC) at its March 7, 2011 meeting accepted the regional approach to complying with SBx7-7 with the conditions that the North Marin Water District, City of Sonoma, and the Town of Windsor report to the TAC on progress in complying with SBx7-7,

WHEREAS, the Town has prepared the necessary technical analyses to develop the Town Water Service Area data required by SBx7-7; and

WHEREAS, the Town understands that the SBx7-7 targets may be adjusted in the 2015 update to the Urban Water Management Plan if further analyses prove another method more accurately fits the Town water use; and

WHEREAS, the Act also requires that the water conservation measures and economic impact of those measures designed to assist an agency to meet the established water targets be reviewed as a part of establishing the water use targets; and

WHEREAS, the Town Council has considered all information related to this matter, as presented at the public meeting of the City Council identified herein, including any supporting reports by Town Staff, and any information provided; and

WHEREAS, the Town has duly noticed a Public Hearing on SBx7-7 and, having conducted a Public Hearing before the Town Council in accordance with said notice on April 6, 2011, Method 3 Targets of 143 gpcd interim and 130 gpcd year 2020 individual targets and regional targets of 142 gpcd and 129 gpcd for interim and year 2020, respectively, now may be adopted.

NOW, THEREFORE, BE IT RESOLVED, by the Town Council of the Town of Windsor, as follows:

1. The Town Council hereby finds that the facts set forth in the recitals to this Resolution are true and correct, and establish the factual basis for the Town Council's adoption of this Resolution.

2. On April 6, 2011, the Town Council held a public hearing on the SBx7-7 Targets. Notice of the time and place of said hearing was published in the Windsor Times on March 17, 2011.

3. The Town Council hereby determines that the Recommended Action is not subject to CEQA, pursuant to CEQA Guidelines Section 15060(c) (3).

4. The Town Council, using Method 3 as outlined in the Act, establishes a 2015 Interim SBx7-7 Target as 143 gallons per capita per day (gpcd) and a 2020 SBx7-7 Target as 130 gpcd.

5. The Town Council also agrees to adopt a regional target of 142 gpcd in 2015 and 129 gpcd in 2020 respectively.

6. That the water conservation measures and their economic impacts are reasonable to meet.

7. This Resolution shall take effect immediately upon its adoption.

PASSED, APPROVED AND ADOPTED this 6th day of April 2011, by the following vote:

AYES: **COUNCILMEMBERS GOBLE, SALMON, SCHOLAR AND VICE MAYOR FUDGE**
NOES: **NONE**
ABSTAIN : **NONE**
ABSENT: **MAYOR ALLEN**

Debora Fudge
DEBORA FUDGE, VICE MAYOR

ATTEST: Maria De La O
MARIA DE LA O, TOWN CLERK

NORTH MARIN
WATER DISTRICT

999 Rush Creek Place
P.O. Box 146
Novato, CA 94948

PHONE
415.897.4133

FAX
415.892.8043

EMAIL
info@nmwd.com

WEB
www.nmwd.com

May 18, 2011

California Department of Water Resources
Division of Statewide Integrated Water Management
Water Use and Efficiency Branch
Attn: Manucher Alemi Chief
PO Box 942836
Sacramento, CA 94236

Dear Mr. Alemi

A regional alliance has been formed between and among the cities of Santa Rosa, Rohnert Park, Sonoma, Cotati, Petaluma, Town of Windsor and North Marin, Marin Municipal and Valley of the Moon Water Districts to comply with SBx7-7, the Water Conservation Act of 2009. The regional alliance has been formed pursuant to the Department of Water Resources Methodologies for Calculating Baseline and Compliance Urban Per Capita Water Use because the parties receive water from a common water wholesale supplier, the Sonoma County Water Agency. Data pertaining to the regional alliance can be collected through the individual cities and water districts urban water management plans to be submitted by July 1, 2011.

Should you have any questions regards the regional alliance, please contact me.

Sincerely,

Chris DeGabriele
General Manager
North Marin Water District

Chair, Technical Advisory Committee
to the Water Contractors receiving
wholesale supply from SCWA

cc: Miles Ferris, City of Santa Rosa
Darrin Jenkins, City of Rohnert Park
Milenka Bates, City of Sonoma
Damien O'Bid, City of Cotati
Pamela Tuft, City of Petaluma
Richard Burtt, Town of Windsor
Krishna Kumar, Valley of the Moon Water District
Paul Helliker, Marin Municipal Water District

CD/rr

T:\GM\SCWA\2011\dwr letter re regional alliance.doc

Letter Agreement

Between and Among

Cities of Santa Rosa, Rohnert Park, Sonoma, Cotati, Petaluma, Town of Windsor

And

North Marin Water District, Marin Municipal Water District

and Valley of the Moon Water District

For

Establishing a Regional Alliance to Comply with

SB x7-7 the Water Conservation Act of 2009

Recitals

A. The Water Conservation Act of 2009 (SB x7-7) set a goal of achieving a 20% reduction in statewide urban per capita water use by the year 2020 and requires urban water retailers to set a 2020 urban per capita water use target. SB x7-7 provides that urban water retailers may plan, comply and report on a regional basis, individual basis or both.

B. The Parties to this Letter Agreement (Cities of Santa Rosa, Rohnert Park, Sonoma, Cotati, Petaluma, Town of Windsor and North Marin, Marin Municipal and Valley of the Moon Water Districts) are eligible to form a "Regional Alliance" pursuant to the *Department of Water Resources Methodologies for Calculating Baseline and Compliance Urban Per Capita Water Use* (DWR Methodologies) because the Parties receive water from a common water wholesale water supplier, the Sonoma County Water Agency (Agency). The Parties desire to establish a Regional Alliance for purposes of complying with SB x7-7.

C. The Parties and the Agency are signatories to the Sonoma-Marin Saving Water Partnership Memorandum of Understanding (S-MSWP MOU) that provides for the identification and implementation of regional water conservation programs and tasks as directed by the Water Advisory Committee (WAC). The S-MSWP MOU requires financial and reporting commitments for implementation of water conservation programs.

Agreement for Regional Alliance Target Setting and Reporting

1. Regional Alliance Formation and Target Setting

Pursuant to the DWR Methodologies, the Parties hereby form a Regional Alliance and agree to send a letter to the Department of Water Resources (DWR) prior to July 1, 2011 informing DWR that a Regional Alliance has been formed. The Parties agree that the Regional Alliance Target will be established using Option 1 (as Option 1 is described in the DWR Methodologies) and that each Party will include the Regional Alliance Target in its individual 2010 Urban Water Management Plan.

2. Regional Alliance Review

No later than December 31, 2015, the Parties agree to review and re-analyze the Regional Alliance and Regional Alliance Target as part of the preparation of the 2015 Urban Water Management Plan.

3. Regional Alliance Reporting

The Parties agree to prepare Regional Alliance Reports pursuant to the DWR Methodologies including but not limited to the following information: baseline gross water use and service area population, individual 2015 and 2020 water use targets for each Party and for the Regional Alliance, compliance year gross water use and service area population, and adjustments to gross water use in compliance year. The information will be provided by each Party and reported in the annual S-MSWP report in addition to the information required in the annual report, as outlined in the S-MSWP MOU.

4. Regional Water Supply Planning

The Parties agree to participate in discussions regarding regional water supply planning.

5. Regional Alliance Dissolution

The Parties agree that each Party can withdraw from the Regional Alliance at any time without penalty by giving written notice to all other Parties. If a Party withdraws from the Regional Alliance, the Parties agree that the Regional Target will be recalculated among remaining participating Parties as set forth in the DWR Methodologies and in Section 2 above.

6. Miscellaneous

This Letter Agreement shall be between and among those Parties that have executed this Letter Agreement by May 1, 2011. If all Parties have not executed this Letter Agreement by said date, the Parties who have executed this Letter Agreement by May 1, 2011, agree that the Regional Target will be recalculated among participating Parties as set forth in the DWR Methodologies and in Section 2 above.

7. Letter Agreement Authorization

This Letter Agreement may be signed in counterparts. By signing below, each signatory states that he or she is authorized to sign this Letter Agreement on behalf of the Party for which he or she is signing.

Miles Ferris 4/20/11

Name: Miles Ferris Date

City of Santa Rosa

_____ _____

Name: _____ Date

City of Rohnert Park

_____ _____

Name: _____ Date

City of Sonoma

_____ _____

Name: _____ Date

City of Cotati

6. Miscellaneous

This Letter Agreement shall be between and among those Parties that have executed this Letter Agreement by May 1, 2011. If all Parties have not executed this Letter Agreement by said date, the Parties who have executed this Letter Agreement by May 1, 2011, agree that the Regional Target will be recalculated among participating Parties as set forth in the DWR Methodologies and in Section 2 above.

7. Letter Agreement Authorization

This Letter Agreement may be signed in counterparts. By signing below, each signatory states that he or she is authorized to sign this Letter Agreement on behalf of the Party for which he or she is signing.

_____ _____

Name: _____ Date

City of Santa Rosa

_____ 4/13/11

Name: Gabriel A. Gonzalez Date

City of Rohnert Park

Per Rohnert Park City Council Resolution No. 2011-30 adopted on April 12, 2011

_____ _____

Name: _____ Date

City of Sonoma

_____ _____

Name: _____ Date

City of Cotati

6. Miscellaneous

This Letter Agreement shall be between and among those Parties that have executed this Letter Agreement by May 1, 2011. If all Parties have not executed this Letter Agreement by said date, the Parties who have executed this Letter Agreement by May 1, 2011, agree that the Regional Target will be recalculated among participating Parties as set forth in the DWR Methodologies and in Section 2 above.

7. Letter Agreement Authorization

This Letter Agreement may be signed in counterparts. By signing below, each signatory states that he or she is authorized to sign this Letter Agreement on behalf of the Party for which he or she is signing.

_____ _____
Date

Name: _____

City of Santa Rosa

_____ _____
Date

Name: _____

City of Rohnert Park

4/19/2011

Date

Name: Milenka Bates

City of Sonoma

_____ _____
Date

Name: _____

City of Cotati

6. Miscellaneous

This Letter Agreement shall be between and among those Parties that have executed this Letter Agreement by May 1, 2011. If all Parties have not executed this Letter Agreement by said date, the Parties who have executed this Letter Agreement by May 1, 2011, agree that the Regional Target will be recalculated among participating Parties as set forth in the DWR Methodologies and in Section 2 above.

7. Letter Agreement Authorization

This Letter Agreement may be signed in counterparts. By signing below, each signatory states that he or she is authorized to sign this Letter Agreement on behalf of the Party for which he or she is signing.

_____ _____

Name: _____ Date

City of Santa Rosa

_____ _____

Name: _____ Date

City of Rohnert Park

_____ _____

Name: _____ Date

City of Sonoma

Dianne Thompson 5-17-11

Name: Dianne Thompson Date

City of Cotati

Name: Pamela Tuft

City of Petaluma

4-11-11
Date

Name: _____

Town of Windsor

Date

Name: _____

North Marin Water District

Date

Name: _____

Marin Municipal Water District

Date

Name: _____

Valley of the Moon Water District

Date

_____ _____

Name: _____ Date

City of Petaluma

J. Matthew Mullan 4-12-11

_____ _____

Name: J. Matthew Mullan Date

Town of Windsor

_____ _____

Name: _____ Date

North Marin Water District

_____ _____

Name: _____ Date

Marin Municipal Water District

_____ _____

Name: _____ Date

Valley of the Moon Water District

Name: _____

City of Petaluma

Date

Name: _____

Town of Windsor

Date

Chris DeGabriele

Name: Chris DeGabriele

North Marin Water District

4/26/2011

Date

Name: _____

Marin Municipal Water District

Date

Name: _____

Valley of the Moon Water District

Date

_____ _____
Date

Name: _____

City of Petaluma

_____ _____
Date

Name: _____

Town of Windsor

_____ _____
Date

Name: _____

North Marin Water District

Paul Helliker 5/13/11
Date

Name: Paul Helliker

Marin Municipal Water District

_____ _____
Date

Name: _____

Valley of the Moon Water District

_____ _____

Name: _____ Date

City of Petaluma

_____ _____

Name: _____ Date

Town of Windsor

_____ _____

Name: _____ Date

North Marin Water District

_____ _____

Name: _____ Date

Marin Municipal Water District

Name: KRISHNA KUMAR April 11, 2011

Date

Valley of the Moon Water District